G. R. S. IX-5]

Previous references.

1898.

191 .

(Sanitary.)

Later references.

File No. 25.

Serial Nos. 1-5

GENERAL AND REVENUE SECRETARIAT.

Serial Nos.

M Part B for

SUBJECT.

Abolition of Compulsory Segregation in Mysore.

Indexed
M. Nazar Hussain

W D 88—GPB—50,000—24-7-16

Memo regarding Compulsory Segregation

We had a Council meeting yesterday at which Surgeon Lt Col Benson was present by appointment. He explained how the system of Compulsory Segregation had proved a failure and he suggested inoculation & Home Segregation in lieu of Segregation in Camps the abolition of which he strongly advocated. Lt. Col Benson's opinions are contained in ~~Enclosure~~ Appendix No. 2 (this letter of 22nd Nov 1918 and enclosed memorandum).

2. Mr. Mathews has agreed that the abolition of Compulsory Segregation had become necessary, and his reasons are given in his D.O. letter to me an extract from which is appended to this memo as Appendix No 1.

3. The Hon'ble Mr. Thumboo Chetty

and Mr Khaitan's were strongly
distinctly of the opinion that
Compulsory segregation had
done much harm and failed
to do any good - Myself had always
been of that Opinion ~~from time past~~. Under such
Circumstances the Council
unanimously adopted the two
Resolutions as per Appendix III

4. The first of these Resolutions
~~merely~~ embodies the rules framed
by the Govt of Madras and
published in Notification
of the 15th Instant This
have the effect of abolishing
Segregation when all the
inmates of a house have been
inoculated The Second
Resolution abolishes Segregation
also as a Compulsory measure

Even if all the inmates have not been inoculated, but subject to Conditions of

1st. Thorough disinfection of the House & its Contents

2d. Separate treatment of the patient so as to avoid infection to other inmates

& 3d. Prevention of infection to neighbouring dwellings, by means of a Cordon round the infected House and in such other ways as the Plague Authority may deem necessary

5. That the ~~In any Epidemic~~ Resolutions as above ~~Resolution~~ be brought into ~~Effect~~ immediate Effect throughout ~~the State~~, is the unanimous opinion of all our Officers, an opinion in which I entirely Concur — ~~It is necessary for me in this place to recapitulate the Arguments given by~~

~~Briefly state the arguments for~~

The immediate
~~Appendices for the~~ abolition
of Compulsory Segregation.
~~is most urgently required, for~~
~~to be~~

~~1st~~
is a step which is most urgently ~~called for~~, & wh. briefly advert ~~to~~ Sam 7 &
required, ~~for the following~~ principal reasons -

1st ~~That~~ Compulsory Segregation
~~is intensely unpopular in such a~~
~~London at Evening~~
Wherever it has been tried has
proved & be intensely unpopular,
owing to the hardships inseparable
from it.

2d. The dread of it is so great
in the minds of the people, that
they will scruple at nothing
which gives them a chance
of evading it & it drives them to desperation.

~~3d. It drives the people~~
desperation, and ~~it is~~
simply impossible to Coerce
a whole ~~population~~ to
~~Submit~~ to it - and

3d. On the other hand
it is productive of a result
the exact reverse of what
we intend to accomplish.
It leads to the flight of

whole families in ~~Various~~ all
directions and the Consequent
Establishment of ~~the~~ many
new centers of ~~infection~~
infection. It leads to
~~the~~ Concealment of the disease
and the Secret plunging
of Corpses in wells, Tanks
and ~~other~~ public places
and ~~the infection~~ Consequent
dangerous accumulation
of the infection and.
to increased mortality

~~4th Even the Segregated~~
~~persons~~
~~4th The Separation~~
~~the~~
~~has a~~

4th As regards the segregated persons
~~Segregated~~ themselves, their Separation
from their families ~~has~~
~~and the Surroundings~~
and the Conditions of
their treatment ~~in~~
~~Hospitals~~ ~~where~~ ~~those~~
with other patients in

~~and~~ their gloomy Surroundings,
in a Hospital ~~where~~
with many patients
in it, and their ~~increased~~
~~dread in the die~~ Our feelings
of dread and isolation

~~A Hospital necessarily~~
are necessarily
~~Create~~ Conditions most
unfavorable to their
successful treatment
Eventual recovery

5th The method of Coercion
is a mistake under the
best of Conditions, but
in the present Case it
amounts to a Crime
Coercion is found ~~to be~~ to fail
~~in~~ ~~other~~ ~~mistake~~ in
the treatment of Even
Children & animals,
And yet we are resorting
to it ~~to~~ in the Case of
a whole population
who have for many
generations Enjoyed
a Civilization of
some Kind — and
who at any rate ~~—as~~

~~the rest of humanity to the~~

May surely be expected
as the rest of humanity —
to be guided in all
their acts by the instinct-
of Self preservation
If once the element of
Coercion is removed
I am Sanguine the people
Can Easily be got
to accept ~~to~~ advice
& help intended for
their benefit, & Carry
out all Sanitary &
disinfecting measures
required to ward off
the disease, & protect
themselves by inoculation
and in short to do
Everything to minimize
the ravages of the Plague
as indeed they have
~~been & too anxious~~
~~to do~~ always so

spontaneously done
in regards the Small
pox & cholera -

6. When the Plague
appears in a house
or ~~in~~ more duty begins &
~~and~~ with provisions
~~for~~ act- its spread to
neighbouring dwellings
and the discharge of
this duty is ~~quite~~
~~Conviction possible~~
quite fearless under
a System of "Home
Segregation" - but any
fault, it is more
fearless under it
than under a System
of "Compulsory Segregation
to a Hospital or Camp",
which has the direct
effect of interrupting
& spreading the infection
as experience has everywhere

9/

Shown

Bangalore
23 - Nov - 1898

Sg to Sheshadri Ayr
Dewan

I beg to enclose
also a memorandum
by the Sanitary Engineer
(marked Appendix IV)
which contains some
important relevant
opinions from English
Reports.

Sg R.S.

Bang 10/
25 98
1

GOVERNMENT OF MYSORE

23rd March/98

My dear Col: Campbell

I am submitting the enclosed Council Resolution to Her Highness kindly explain that the change in Plague Rules as resolved upon yesterday is an important one It particularly abolishes "Segregation" in Hospitals and Camps and substitutes therefor

11

Confidential

Bangalore
23rd November 1898.

11

My dear Col Robertson

I beg to submit herewith a Memo. with Appendices regarding "Compulsory Segregation" They contain, besides my own views, those of Mr. Madhava Rao & Surgeon Lt. Col. Benson who have been connected with Plague Administration in Mysore from the commencement. Both Mr. Shamboo Chettiar and Mr. Krishna Murti cordially concur in these views Indeed I know of no one Official or non-official European or Native who has a good word to say for "compulsory Segregation" Appendix III the Council Resolution of yesterday shows exactly the change which

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Jan
3 78
3

Memorandum regarding
Compulsory Segregation
D 232 Nov 1898

We had a Council
meeting yesterday at
which Surgeon Lt. Col.
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had proved a failure, and
he suggested isolation
and Home Segre-
gation, in lieu of Seg-
regation in Camps,
the abolition of which
he strongly advocated.
Lt-Col. Benson's opinions
are contained in Ap
pendix n° 2 (His letter
dated 22 November 1898
and enclosed memorandum

2 Mr. Madhava Rao agreed that the abolition of Compulsory Segregation had become necessary, and his views were given in his D. O. letter to me, an extract from which is appended to this memo as Appendix "I".

3 Both Mr. Thumboo Chetty and Mr. Krishna Menon were strongly of the opinion that Compulsory Segregation had done much harm and failed to do any good. Mr. Wolf had always been of that opinion. Under such circumstances the Council unanimously adopted the two Resolutions as

ment of the patient,
so as to avoid in-
fection to other inmates
and 3rd Prevention of
infection to neighbour-
ing dwellings, by means
of a cordon round the
infected houses and in
such other ways as the
Plague authority may
deem necessary.

5. That the Reso-
lutions as above should
be brought into im-
mediate effect throughout
the State, in the un-
animous opinion of
all our officers, an
opinion in which I
entirely concur. The
immediate abolition
of Compulsory Segre-
gation is a step
which is most urgently

14

per Appendix III

4 The finish of those Resolutions embody the Rules passed by the Government of Madras and published in Notification of the 15th instant They have the effect of abolishing segregation when all the inmates of a house have been inoculated. The second Resolution abolishes Segregation as a Compulsory measure even if all the inmates have not been inoculated, but subject to conditions of

1st Thorough disinfection of the house and its contents.

2d Separate treat

16 required. I would briefly advert to some of the principal reasons

1st Compulsory Segregation wherever it has been tried has proved to be intensely unpopular owing to the hardship inseparable from it

2d The dread of it is so great in the minds of the people, that they will scruple at nothing which gives them a chance of evading it and it drives them to desperation.

3d On the other hand it is productive of a result the exact reverse of what we intend to accomplish

It leads to the flight of whole families in all directions and the consequent establishment of many new centres of infection. It leads to concealment of the disease and the secret plunging of corpses in wells, tanks and public places and consequent dangerous accumulation of the infection and to increased mortality.

4th As regards the segregated persons themselves their separation from their families their gloomy surroundings in a Hospital with many patients in it and their own feelings of dread and

18

isolation) are necessarily conditions most unfavorable to their successful treatment or eventual recovery.

5th The method of Coercion is a method under the best of conditions, but in the present case it amounts to a crime. Coercion is found to fail in the treatment of even children and animals, and yet we are resorting to it in the case of a whole population who have for many generations enjoyed a civilization of some kind — and who at any rate may surely be expected to do the rest of humanity.

to be guided in all
their acts by the in-
stinct of self preservation
If once the element of
Coercion is removed I
am sanguine the people
can easily be got to
accept advice and
help intended for their
benefit to carry out
the sanitary and dis
infecting measures
required to ward off
the disease, to protect
themselves by inoculat
ion, and in short to
do everything to mini-
mize the ravages of the
Plague, as indeed they
have always done spon-
taneously done as
regards the small
pox and Cholera

20

appears in a house our proper duty begins and ends with providing against its spread to neighbouring dwellings and the discharge of this duty is quite feasible under a system of "Home Segregation" at any rate, it is more feasible under it than under a system of "Compulsory Segregation to a Hospital or Camp which has the direct effect of intensifying and spreading the infection as experience has everywhere shown.

K. Sheshadri Iyer.

Bangalore
23rd Nov. 18 } Dewan

I beg to enclose

also a memorandum
by the Sanitary En
gineer (marked Ap
pendix IV) which con
tains some important
relevant opinions from
English Reports.

Bangalore
22nd March 1898
5.30 am

Section Gen
File No 25-98
Serial No 4

My dear friend

Ever since I left you last night I have been thinking over the Segregation question. I have no hesitation in saying that it is time that the Mysore Govt adopted the Resolution come to yesterday at the meeting of Council on the advice of myself & Col: Benson the Rule provides every safeguard against the spread of the plague by infected persons or by those who have been in contact with them and at the same time has the merit of enabling us to declare that there shall be no more "Compulsory Segregation". This word segregation

has a great deal to answer for. It is in the mouth of everyone from the ignorant ryot in an outlying village to highly educated men in towns. The villagers of course do not know the meaning but it is associated in their imagination with all the horrors of the plague administration in Bombay in the earlier stages. [redacted] (Such all classes dread the word.)) No persuasion, no actual demonstration will convince them that segregation by law means quite a different thing in fact. Their feelings of the people & their comforts could not be considered better than they have been in the city

But all the same they dread a
quite as much as in other places, and
are aware of the dreadful scenes that
are still being enacted tho not to the
same extent as before segregation
has not prevented the spread of the disease
but on the contrary has been responsible
for its dissemination all over the
surrounding talukas & districts. Segregation
may be good in theory but has proved
an utter failure in practice. It is
insulted to the habits, customs &
prejudices, & the present ~~deplorable~~ condition
~~of the~~ of the people as
regards intelligence & general knowledge. In
spite of the extraordinary precautions
adopted against the imposition
being carried & other places, by the
institution of a regular system of
passes observation notice. & frontier

out-ports which have on the whole worked well the decrease has been unintelligent in different Centres where it cannot be so effectually dealt with as in the larger towns. Segregation has thus resulted in very evil which it was designed to prevent & it is time that the people were assured that no one shall be removed from his house against his will. I do not apprehend any evil to arise from a proclamation of this nature. The people have by this time learnt that plague is an infectious & contagious disease & that they should avoid all contact with infected persons & households they will readily report cases in the neighbourhood & even the intimate of an infected house would not evade

commenced in by 9 qualifying clauses
& provisos There may be[illegible] a
place in the regulations but we have
practically every safeguard against
spreading of the plague while the
announcement will change the
attitude of the people towards the
Govt & its measures & take away all
fear that it is being done for their
good.

While at Mysore I had a
Conference with almost all
the leading Mohammadans of the place.
They fully appreciate all that is being
done for them & for the people at large
& as usual they do not like removal
to Govt Camps. While I proposed
inoculation as an alternative to
segregation they readily consented to
be inoculated. They said they had

an infected area a measure
decidedly meant for the benefit
of the village the perverse ingenuity
of the local Shanhaigne or 2nd
grade pleiades represents it as a
designed for a place to breed
plague germs in for infecting the
village with! This was what
the observation shots in Sanjam
were actually represented to be
doing when on the subsidence of
the French Rocks telling the people
that if they suspected Augustus
to have poisoned their wells
he would make him drink the very
water alleged to have been poisoned

villages were ready with the
reply that Augustin had provided
himself with an antidote!

Her highness who takes an
intelligent interest in plague matters
was grieved & found that in spite of
all that had been done people still
persisted in misunderstanding the
action of govt & was anxious that
some means should be devised for
learning the co-operation
of the people. I said the question
was engaging your attention & I should
soon see you and the Resident and
get the rules so modified as to
make them acceptable to the people
& I said above the rules adopted
at the last meeting will secure this
object. We should be able to announce
immediately that "Compulsory segregation
has been abolished. There is a great deal
in phrases. They go down with people
better than long winded resolutions

inquiry to or resort to concealment
ignorant
The poorer classes would rather
go to the camps than submit to the
cut off from communication with
the outerworld the intelligent & well
to do men will resort to inoculation
& save themselves the restriction imposed
on uninoculated people. There will be
an immense feeling of relief all
over the Country & there will no longer
be the vague fear that is agitating the
public mind & makes them see
unimaginable terrors. There none
exists in almost every measure
of precaution & prevention taken by
Govt. Where the ignorant & stupid
~~of~~ villages fail to see any harm
in say the putting up of Observation
Tents for keeping out men from

3/ already had 30 themselves & their women & children inoculated would get the whole town inoculated similarly if there were doctors & serum forthcoming. I have asked Dr Benson & Mahe to exhibit possible promptness & meet the demand for inoculation that has arisen in Mysore. The Mohammedans were very friendly and assured me again & again that they had every confidence in the Govt & expressed their personal regard and good wishes to me. I know all the leaders well & I am sure they were quite sincere in what they said. The temper of the Community is good & I feel that if I ~~wanted~~ wanted to any of its members going to the Legislature tomorrow they would readily

Comply with my wishes in
Jennie's case & want you remarked
last evening about the apprehension
of the European community in
Mysore regarding a rising of the
Coimmunity ~~against~~ against the
the English residents. I wonder if
but this idea into people heads in
Mysore. This is the last thing the
people of mysore generally would think
of doing & least of all the Mohammedans
I am sincerely sorry that such
an idea should be entertained. I consider
it an insult to the loyalty & law
General lawabiding nature of the Indian
people & particularly the people of
Mysore. ~~The~~ No doubt the alleged
has unsettled people minds
mischievous persons among the idle

and half ~~educated~~ classes
have misleading
have for some time ~~misled~~ people
~~deceived~~ for purposes of their own
but this is a passing mood I
have every faith in the abiding
loyalty of the community at
large & with a firm ~~Govt~~ just
Govt every thing & will come right
soon That fuellers were loose in
Kanyam & surrounding ~~the~~ villages
& Govt had not a good grip over affairs
for some time is matter of notoriety
so much so that Mr Kantara him-
self told me & he replied to the
sentiments that he was not satisfied
with the way the Kanyam riots were
dealt with & that delaying arrests
would be disastrous. Similarly Mr Clauson
now told me that at the Khasi Club
there was a general sense of satisfaction
that Govt had at last taught a

Lesson to the Sanyasis. I do not think if there is any disappointment at all it must be the unregenerate party whose mouthpiece is the "Evening Mail"

I think to confirm the good effect produced by the recent Darbar action I should Ramaswami should go down to Mysore & give him every help & support in reestablishing confidence at Mysore. There yet a great deal to be done & Ramaswami with the prestige attaching to his successful handling of the Sanyasi in Ganjam will be able to put matters down factions & restore order. Not that there anything wrong there, but the people were

all generally getting out of hand
and the presence of some higher
~~of~~ power will have a re
assuring effect

I had also a meeting of
the Hindus, and of the Brahmins
and these also went away pleased
with the assurance given them.

I would advise the new
regulation being passed without
delay. The Resident is fully
aware of the evils attendant on
Legislation & will I am sure
readily give his assent to the new
Regulation. I would publish
them first in Kannada & print
thousands of leaflets & the dis

distributed all over the
Country I would also
include with the Resolution
the explanatory memo therein
the benefits of inoculation
are set forth, also the proviso
made by Govt for the poorer
Classes. who work & leave an
unpeopled locality & similar
matters as cannot fail
place in a resolution.
I am in haste in order
the train & Trunkey

I hope you will be able to see the President today & get this question settled

Yours sincerely

W Jennings Bryan

11 37

Bangalore.
22: 11: 98.

From The Senior Surgeon & Sanitary Commissioner

To The Plague Commissioner

Sir.

I have the honor to forward herewith for your information a tentative proposal to expand our future Plague policy, from which you will see, that I advocate the abolition of compulsory segregation in favor of inoculation &, for it must be self evident to every one who has carefully watched the progress of segregation operations of late that the spread of Plague right along the native population took place in spite of the most stringent efforts the Government could make to prevent it. Moreover should the suggestions contained in my proposals, if adopted, be followed by success, I trust they will result in the necessary modifications for putting them in force as soon as possible.

I have the honor to be
Sir
Your most obedient Servant
Surgeon Major I.M.S.

I 38/ III

MEMORANDUM ON SEGREGATION AND INOCULATION

The Government of India in their Memo No 2849 of 26th October 1897 say "His Excellency in Council is therefore strongly of opinion that the most important object to aim at is, not the control of the movement of the people, but the adoption of such well-devised and stringent measures as will prevent the occurence of plague cases from engendering fresh dangerous plague centres, whence the infection will certainly spread in spite of all efforts to confine it. Experience has shown that the measures upon which reliance may be placed to effect this end are in outline"

I The prompt detection of cases by
   A. Search parties, and
   B. Better registration of deaths

II The removal of the sick to segregation Hospitals.

III The detention in segregation of healthy occupants of infected houses.

IV The evacuation of infected quarters.

V The cleansing and disinfection of infected houses and quarters.

VI General sanitary improvements, such as the abatement of overcrowding and the improvement of ventilation and drainage.

II 39 IV

Since issue of the above order much information has been collected in connection with the questionable efficiency of these rules; and the introduction of new methods of dealing with the disease in question. The Government of India have been and still are pressing the advantages of Segregation and evacuation in preference to all other methods of dealing with Plague.

The time has, I think, now arrived when these measures may be fairly considered, and revised if found necessary. Of all the measures laid down by the Government of India by far the most important is Segregation, (by segregation I mean, segregation of both the sick and those in contact with them, and evacuation of houses) both with reference to the beneficial results anticipated from its adoption, and to the somewhat unforunate results [redacted], that have actually been caused by it.

Segregation as a measure for the arrest and prevention of Plague has now been in force since the commencement of the Epidemic in Bombay, and before we form any definite opinion as to its efficiency or otherwise, let us carefully consider the results of these operations as carried out in Bombay and Baroda; and then judge, whether or no, they have produced the beneficial results that were anticipated from them.

Let us take for consideration

Ist The segregation of those actually sick,

2nd Segregation of the contacts,

and see if in either of these places it was found possible to carry out this measure in its entirety; for it is only when carried out thus, that we can expect it to be really successful.

III 40 I

Ist Segregation of the sick.

Knowing the aversion of the Native population to being separated from their friends during any sickness, and the horror they have of dying outside their own homes, is it possible, during a large Epidemic, to remove any appreciable proportion? If the table at the end be examined, it will be found that it is not possible to get hold of more than about one-quarter of the cases ending in death.

The population of Baroda is at ordinary times I20,000, but when a census was taken in January only 80?000 could be found. At the rate of 40 per mille per annum this gives a death-roll of 3,200 in the year, or a weekly mortality of 62. If 62 be deducted from the deaths returned in the column "other deaths" (vide statement attached) we may safely take the remainder as being due to plague, for no other epidemic was known to be present. If the calculation be thus made, we find for the week ending-

2nd January I898,	25	deaths	in	hospital	&	I0I	in houses
9th " "	33	"		"		I40	"
I6th " "	45	"		"		I89	"
22nd " "	45	"		"		I9I	"
29th " "	48	"		"		236	"
5th February "	64	"		"		2I0	"
I2th " "	42	"		"		205	"
I9th " "	43	"		"		209	"
26th " "	82	"		"		225	"
5th March "	98	"		"		I08	"
I2th " "	54	"		"		43	"
I9th " "	44	"		"		24	"
26th " "	2I	"		"		25	"
Total for I3 weeks	654	"				I,906	"

That is to say, very little more than one-third of the cases were found early enough to remove to hospital and those so removed, being generally in the last stages of the disease, had already thoroughly infected their

surroundings. Even supposing that it were possible to re-move along with the sick man, all sources of infection to others (and in plague which infects localities, and affects rats, we cannot hope to do this), it is not reasonable to think that by removing one-third of the infective foci only, we can arrest an epidemic, while the other two-thirds are left in the houses to infect others.

2nd Segregation of contacts-

In regard to segregation of contacts, let us see whether it has been possible to remove and confine for ten days all those in close relation with the sick persons.
Let us take Bombay City this time, where there was an energetic Plague Committee and a huge staff to carry out their orders. During January and February of this year there were 7,670 attacks of plague reported, so if we take the very small number 3, for each family, as represent-ing all who had been in contact with the disease, we should expect to find that at least 23,000 contacts had been removed. But as a fact we find that only 1572 people were so removed and segregated, or less than one for every four cases of plague! But it is easy to prove 3 pp! that these reported attacks do not represent anything like the actual mortality from plague, and besides this we must reckon on a large number of cases ending in recovery and about which no report is ever made. As an example let us take the first fifteen days of March, and we find that in this time 2,243 attacks and 2,513 deaths from plague were registered. Of these, 588 attacks and 183 deaths were among people whose residence was not discovered, so that it was impossible to segregate any one from their houses. But if we deduct from the total mortality, which was 4,620, the average normal mortality

mortality of the city, at 70 per diem, we get (4,620-I,050) 3,570 as the ture plague death-rate for these I5 da days. But only 2,5I3 such deaths were reported; therefore (3,570 - 2,5I3) I,057 deaths from plague occurred which we were never discovered . Each of these deaths represents one case of attack not discovered, and these added to the number of reported attacks whose residence was not known (I,057 588), give a total of I,645 cases of plague whose residence was not discovered and from whose houses in consequence no contacts could be removed. The total numb -er of attacks whose residence was not known was (2,243 + 588) I,655, or only ten more than the number of unknown cases.* When it is considered that for the I,057 unreport-ed attacks that ended fatally, there must have been about 20 per cent. of attacks ending in recovery, and which were also not reported, we see that really less than half the n number of plague cases were ever discovered by the Plague Committee. It is therefore plain that even if the autho-rities had managed to remove all the contacts of the cases discovered by them, there would still have been left more than half who were not so removed. It seems as reason-able to suppose that one can extinguish a fire by beating out only half the flames, as to suppose that by such measures as these the epidemic will be removed from our midst.

In Bangalore City there have been, from the commencement of the Plague on 12th Aug, upto the 20th of Nov, 2626 registered cases of Plague, if we take the small number of 3 as representing each family, 7878 Contacts should have been removed, whereas only 3262. were sent to the Contact Camp. being only a little more than 1/4. P.M.S

The net result of enforcing segregation on any community is

Ist That in order to evade it people fly from infected areas to neighbouring towns and villages, and so the disease is scattered throughout the length and breadth of the country instead of being confined to one centre.

Note. -That people do fly from infected areas is clearly

clearly proved by the thousands that fled from Bombay. In Bangalore City alone about 37,000 people out of a population of 80,000 left by means of passes in the first two months of the epidemic.

2nd. To concealment of cases, by throwing bodies at night time into wells, tanks, & vacant spaces, sewing them up in gunny bags, & even burying them in their houses. (Note.-) That concealment does occur as a result is clearly* shewn by the difference between registered deaths from Plague & the total mortality, the difference taking one day with another being not less than 50 per cent. In the case of Bangalore City the registered number of deaths from Plague was 1095 whereas the total mortality was 2807, or a difference of 1712 which if we deduct the normal death rate for the month, viz 240 gives us 1472 as the number of cases undetected.

A further test as to whether segregation is a wise & prudent measure lies in the fact, that, in order to enforce it, the services of the Military, or Police, or both have been invariably necessary, (vide Bombay, Poona, Calcutta, Bangalore City, & Cantonment) It is moreover to be considered whether the measures laid down by any Government should not be applicable to the Province as a whole, & not to any one town in particular, & as it has been found necessary to utilise force to carry out segregation in its entirety, it must be conceded that force will also be required in other parts, whereas other places are not in possession of the force required to carry out this measure, as is the case with Bangalore. Under these circumstances if this measure is ordered to be enforced in places where there are no Military, or where the Police are unequal to cope with opposition, either troops will have to be sent, or the measure must be abandoned.

VII

From a careful consideration of the foregoing facts , I am convinced that segregation, as a measure for the prevention and arrest of Plague, when once it has established itself, is not only inapplicable but positively injurious: and I feel it my duty as adviser to Government, in Medical and Sanitary matters, to ask them to seriously consider whether theyshould continue in a policy which is not onl y impossible to carry out, but which is also opposed to by all classes of natives, rich and poor alike.

It is , I maintain, impossible for Government to fight both the epidemic and the people; and until we can enlist the people on our side, we cannot expect to make any real progress. It is true that for the last few days there has been a marked tendency for the disease to decline but no one in his senses, could for a single moment maintain that this improvement was brought about by segregation of about one-third of the sick and less than one third of those in contact with them.

The answer to this is plain to, any one who has watched the effects of inoculation by Prof. Haffkine's prophlactic

Statistics

The percentages of these [illegible] work out as follows.

Once inoculated % of attacks

% of attacks to total	2.57
% of deaths "	.96
% of deaths to attacks	37.40

Twice Inoculated

% of attacks to to total	.62
%of deaths "	.I2
% of deaths to attacks	20

Uninoculated

% of attacks to total	25 I7
% of deaths "	I9.70
% of deaths to attacks	74.29

GOVERNMENT OF MYSORE

The results of these operations at Damaun, Lanowli, Kirkee, & Undera have already been published, so it is needless for me to recapitulate them. They show a reduction in mortality of 89.2, 85.7, 77.9, &89.6 respectively.

The result of similar operations, so ably performed by Capt. Leumann, I.M.S. at Hubli, are not yet available in an official form, but during my several visits to Hubli whilst these operations were being carried on, Capt. Leumann assured me that the reduction in mortality would work out to something over 80%. The town of Hubli was first attacked with Plague in October 1897; it was kept in abeyance more or less, up to June 1898, when with the setting in of the rains the epidemic was as bad, if not worse, (considering the size of the town) than any previous onethat had occurred in any city in India, the daily attacksamounting to 97 per diem in the latter part of August. From the commencement of June to the end of Septr. Capt. Leumann & his confréres inoculated some 38,000 persons, the majority of them undergoing a second operation, the result being that within three months the disease was practically stamped out, & the town of Hubli has been, & is now, to all intents & purposes free from Plague, for the simple reason that all the susceptible people have been protected by inoculation.

That persons inoculated with Haffkine's prophylactic do enjoy a very great immunity from Plague is clearly shown by the Dharwar figures e.g.

	Population	Attacks	Deaths
Once inoculated	3,535	91	34
Twice " " "	2,428	15	3
Uninoculated	4200	1,057	827

The Bombay Medical Unoin have already given their opinion in a most emphatic manner, as the following resolution was passed after a discussion extending over three or four meetings

IX 346 R1

" This meeting is of opinion that considering the data now available ,and the satisfactory results of observations collected regarding the protective effects of Prof Haffkine plague prophylactic the time has now arrived for the profession to make a definite announcement on the subject and to invite the public to resort freely to protective treatment as the only safe guard against plague

No better proof ,to my mind ,is needed to show that in inoculation we possess a safe and reliable measure for the arrest of plague ,and one which all classes will, I am sure readily submit to if they are assured by Govt that in thus protecting themselves they will not be liable to be segregated, but will be allowed to retain their sick with them .In connection with this matter my views are quite in accordance with those of Major Bannerman .(whose views on all matters connected with plague are worthy of every consideration)when he says "The proceeding to be adopted is precisely that now employed for combating an epidemic of small-pox for when the disease breaks out we send a vaccinator to operate on the unprotected inhabitants and no one hears in this country of huge epidemics or of segregation .If all the susceptible people are protected the disease must come to an end ,just as fire expires from want of fuel "/ During the beginning of an epidemic removal of the patients and segregation of the contacts may undoubtedly employed with success, but when once cases begin to crop up all over a town and the whole area becomes infected ,thenI think the time has arrived to drop all these measures and to employ inoculation pure and simple, by which means it is hoped we may enlist the peop on our side which is the principle thing in such a n emergency .

He holds that the proceeding to be adopted in dealing with an Epidemic of Plague is precisely the same as in an Epidemic of Small Pox i.e. to find an inoculator to operate on the unprotected inhabitants, for if all the susceptible people are protected, the disease must come to an end

X 47 XII

GOVERNMENT OF MYSORE

About a month ago I forwarded to the Government the outlines of a scheme for the substitution of Inoculation ,for Segregation which has I understand been under their consideration & I have now the honor to lay before them , for their approval or otherwise, the following further detailed proposals.

(I That the present system of compulsory segregation of the sick and contacts in Government camps be abolished, in all towns which have been declared "infected", provided

A. That all the inmates of the infected house are inocu lated, or willing to be inoculated, forthwith.

B. That the infected house ,as well as the clothes of the inmates shall be thoroughly disinfected.

(Note) Every inducement should however be held out to persuade people to take their sick to Hospital as by so doing their chances of recovery are greatly enhanced.

(2) In the case of those who are unwilling to be inoculated or to go to a segregation camp, I would recommend that they be allowed to be segregatedin their own houses, provided

(A) That the inmates be confined to their house by mea of a cordon placed round it

B. That arrangements be made for the thorough disinfection of the house and its contents, & that all other such measures as a Plague authority may direct be adopted for the prevention of the spread of infection to the neighbouring dwellings.

C That daily observation of the inmates of the house by a competent medical man be insisted upon .

(Note) The number of these cases will I am sure be few, for when once the dread of segregation is removed there will be little or no opposition.

(3) In the case of the very poor & those who have no fixed abode the sick should be sent to the Hospital & the relatives & friends to the Contact Camp.

(4) That in Mysore City & other towns not yet infected the early segregation of imported cases is absolutely necessary

necessary
and to accomplish this end every effort should be made to secure the cooperation of the people.

(5) Should it still be found that after these measures have been in force for sometime that concealment of cases is still carried on I would strongly urge the employment of search parties under competent supervision.

The measures as proposed above when summed up amount to Home Segregation plus Inoculation combined with thorough disinfection of houses & clothes.

Note. In connection with disinfection it is in my opinion absolutely necessary that it should be thoroughly, & in order to ensure this it should in all cases be carried out under competent personal supervision, for if left to subordinates the work will be undoubtedly scamped. With a good disinfection staff, an ample supply of electrolysed water, highly charged with free Chlorine & Sodium Hypochlorite, the disinfecting properties of which are now being carefully investigated by the Government Bacteriologist, & whose experiments so far show that it is little if in any way inferior to Mercuric Perchloride in its sterilising properties (A detailed report on this subject will be submitted to Government when the necessary Bacteriological investigations are finished) there is no reason why a house should not be thoroughly disinfected within a couple of hours, after which time the inhabitants might reoccupy it, and consequently they would experience little or no hardship.

GOVERNMENT OF MYSORE

The advantages of the above measures are

I They do not necessitate separation from home and friends in other words there is home segregation.

2 They inflict no hardship on the people.

3 The people by becoming inoculated are rendered immune, and are no longer susceptible.

4 There is no necessity for the concealment of cases of sickness or death.

5 There will be an ~~immense~~ reduction in expenditure.

6 There will ,it is hoped, be no longer any opposition on the part of the people, but on the contrary cordial cooperation

Percy H. Simeon. 15
Senior Surgeon.
Sanitary Comm.

Bon 21st
— 1898 —

Comparative Statement shewing general mortality and plague cases for the city of Baroda with calculation of real plague death rate, and numbers dying in hospitals and in houses.

	Week	General mortality					Plague cases	Death rate of 40 per mille per anum in population of 80000 3200 or 61.73 say 62 a week. Therefore deducting this from col.4 gives extra deaths due to plague		Deaths houses which were no removed Got by adding columns 2and 7
		Plague deaths			Other deaths	Total deaths				
		In hospitals	Before removal							
1	Week ending 2nd Jan/98	25	I4	39	I49	I88	52	62	87	I0I
2	" " 9th Jan 98	33	7	40	I95	235	49	"	I33	I40
3	" " I6th "	45	I6	6I	235	296	69	"	I73	I89
4	" " 22nd "	45	2I	66	232	298	75	"	I70	I9I
5	" " 29th "	48	22	70	276	346	II0	"	2I4	236
6	" " 5th Feb/98	64	5I	II5	22I	336	I36	"	I59	2I0
7	" " I2th "	42	54	96	2I3	309	II8	"	I5I	205
8	" " I9th "	43	85	I28	I86	3I4	I54	"	I24	209
9	" " 26th "	82	84	I66	203	369	I95	"	I4I	225
10	" " 5th Mar/98	98	43	I4I	I27	268	I62	"	65	I08
11	" " I2th "	64	27	8I	78	I59	90	"	I6	43
12	" " I9th "	44	20	64	66	I30	67	"	4	24
13	" " 26th "	2I	2I	42	66	I08	I66	"	4	25
										I906

Ward system introduced in the week.

No. 809

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Dated Bangalore 21st November /98

From

The Senior Surgeon & Sanitary Commissioner,

Mysore Government.

To

The Plague Commissioner in Mysore

Sir,

I have the honor to forward herewith for your information , a Memorandum on Segregation and Inoculation with my proposals for dealing with Plague in Bangalore City and other towns of the Province. Should the proposals meet with your approval, I trust you will place them before Government for such steps being taken as they may deem necessary.

I have the honor to be,

Sir,

Your most obedient servant

Liut. Colonel,

Senior Surgeon & Sanitary Commissioner,

Mysore Government.

Appendix III

(with Madras Govt Notification)

I Shall the Rules contained in Madras Gazette Notification No 944 dated 15th November 1898 be modified and issued for guidance under the Epidemic Diseases Regulation.

II Shall in any case not falling under the Rules referred to in the preceding Resolution, neither the patient nor the other inmates of a house be liable to be compulsorily removed to Hospital or Contact Camps,

Provided that

(1) Arrangements are made to the satisfaction

of a Plague authority for the
disinfection of such houses
and its contents and for the
separate treatment of the
persons therein or elsewhere;

and provided that —

(1) a cordon be placed
around the house and all
other measures to the
satisfaction of a Plague
authority adopted, for
the prevention of the spread
of Plague to the neighbouring
dwellings.

Short Plague
Act as
regards Bombay

Appendix IV 54

Memorandum

on

Plague Preventive measures present and proposed and permanent Sanitary Improvements connected therewith in the city of Bangalore:—

II

The first case of Plague occurred on the 12th August last, and the experience of the past 16 weeks clearly points to the necessity of a change in the "modus operandi" for abating the disease

2. The System pursued hitherto is the removal to hospital of the attacked, the segregation of the contacts, and the disinfection & evacuation of the house. In theory, and by the accepted opinions of Government Medical Officers, this System is the most effective to stamp out infectious diseases but in practice, whatever may be paper plausibilities, it has lamentably broken down, since it involves fundamental changes in the long established habits of such highly religious races as the Hindus and the Mahomedans

3. It is no new theory. It was practised during the great epidemics which

which devastated Europe during the middle ages; but it failed to check them; and in more recent times, on occasions of outbreaks of cholera in India; and of cholera, small pox, and infection fevers in Europe, it has constantly and conspicuously failed. Against its efficiency there operate some of the strongest of all law-breaking influences Disease is concealed, medical aid is refused, and it sets the people against everything that is done under the plea of their public health. (Drs. Cunningham and McNally)

4. The following figures more forcibly illustrate this:—

Total deaths in October 1898 —	3,026
average deaths in October in previous years. ——	250
Deaths reported as due to Plague	1,248
Deaths probably due to Plague but not reported	1,528
Total deaths —	3,026

It is thus evident that in spite of the elaborate arrangements and extensive establishment engaged in house to house

daily

daily inspections, by far the greater number of deaths have escaped correct registration. The restrictions therefore practically speaking, have proved "nothing better than elaborate illustrations of baskiness."

5. In view of these results it now becomes incumbent for a reversal of policy and the introduction of a System which, though, it may not be so perfect in the medical sense, but being dictated by Expediency may be reasonably expected to lead to more satisfactory results. Plague is an unknown disease to the present and previous generations, and being very frightful in its ravages has completely unhinged the people's mind, and, therefore, every means that will tend to allay their fears and give them confidence in Government measures should be adopted.

6. Before, however, discussing the future Plague Policy, the defects of the present System need Study. The following are extracted from the Eighth Report of the Royal Commission:-

Pt

It cannot be ignored that facts which are of common notoriety and considerations which are of common sense conflict with this medical conclusion. that is, Infections, Hospitals and Segregations

Again - " the cruelties which its maladministration involves, and which in practice are almost identified with its nearness.

4. Firstly:- Plague Hospitals:- The following extracts from the recorded opinions of leading Sanitarians and of medical men of Great Britain are here made to show that there are grave objections to large Hospitals for infectious diseases.

(a) The building becomes saturated with morbid germs, and the poison is concentrated by the aggregation of cases. Doctor Wintar Blyth

(b) Infection is spread by conveying the sick for long distances along streets - Dr. Haughton.

(c) Patients often died on the way to Hospitals - Dr. Haughton

(d) Public

daily inspections, by far the greater number of deaths have escaped correct registration. The restrictions therefore, practically speaking, have proved nothing better than elaborate illustrations of leakiness.

5. In view of these results it now becomes incumbent for a reversal of policy and the introduction of a System which though, it may not be so perfect in the medical sense being dictated by Expediency may be reasonably expected to lead to more satisfactory results. Plague is an unknown disease to the peasant and previous generations and being very frightful in its ravages has completely unhinged the people's mind, and, therefore, every means that will tend to allay their fears and give them confidence in Government measures should be adopted.

6. Before, however, discussing the future Plague Policy, the defects of the present System need Study. The following are extracted from the Eighth Report of the Royal Council:

9/

(d) People die in larger proportions in Hospitals than in their own houses – Dr. Haughton –

(e) Compulsory removal endangers life and increases mortality – Mr. Chadwick. The Veteran President of the Board of Health and Father of Sanitation in England

(f) Terror on the mind in the news of the resounding agonies of the sufferings of assembled patients is the greatest factor in the death-rate of Hospitals – Mr. Chadwick

(g) Bringing together a number of patients is not consistent with the most successful treatment –

(h) People dispise themselves of medical assistance to resist the inquisitorial proceedings on the diseases becoming known – Dr. Collins –

(K) The power of mental depression upon disease is to accelerate the fatal termination. –

Secondly :– <u>Segregation and Quarantine</u> :– In alluding to this regulation it must be noticed that Segregation as enforced in India

is unknown in European Countries, but the kindred restriction - quarantine by Sea and Land - is imposed, and therefore, the Extracts that follow refer to the latter.

(a) The impracticability of any such measure has long been almost universally recognised, and the attempt may be said to have been given up except when for the time unreasoning panic has seized the authorities and induced them to have recourse to measures which in calmer moments they would never have attempted. — Surgeon General Cunningham. C.S.I. M.D. Sanitary Commissioner Government of India

(b) In Countries where travellers and Commerce are subjected to the most vexatious and annoying quarantine regulations the result is the same — disastrous failure.
Quarantine, thus, not only promises a protection it cannot afford, but it diverts attention from the only real protection

(d) People die in larger proportions in Hospitals than in their own houses – Dr. Haughton –

(e) Compulsory removal endangers life and increases mortality – Mr. Chadwick – The Veteran President of the Board of Health and Father of Sanitation in England

(f) Terror on the mind in the sorrows of the resounding agonies of the sufferings of assembled patients is the greatest factor in the death-rate of Hospitals – Mr Chadwick

(g) Bringing together a number of patients is not consistent with the most successful treatment –

(h) People dispise themselves of medical assistance to resist the inquisitorial proceedings on the diseases becoming known – Dr. Collins –

(K) The power of mental depression upon disease is to accelerate the fatal termination. –

8 – Secondly :– <u>Segregation and Quarantine</u> :– In alluding to this regulation it must be noticed that segregation as enforced in India

that can be provided. Time and money and peoples' patience are wasted, and all to no purpose, the real evils to be grappled with are left untouched. I mean Sanitary improvements - pure air, pure water good drainage with suitable dwellings.

Transactions of the Seventh International Congress of Hygiene and Demography. Page 42

(c) I regard it (quarantine) as futile and delusive and mischievous, as affording a false feeling of protection, and delaying, or perhaps postponing indefinitely the carrying out of the real protective Viz:- improved general and domestic Sanitation. Bri: Gade Surgeon Lt.C. Gunn Somatina Senior Surgeon - Mysore.

(d) I have the steadfast conviction that there is in practice only one way to prevent the spreading of epidemic diseases, and that is to make Sanitary improvements.

(e) There is no micro-organism, no infections agent which can produce disease unless there

there is besides the infectious agency some unhealthy condition under which it lives, which can be removed by Sanitary improvements.
Prof: Stokvis - President International Colonial Congress. Amsterdam) -

(f) Whatever part contagion may take as the cause and diffusor of disease, Sanitation is absolutely the only reliable remedy.
Sir Joseph Fayrer - K.C.S.I.

(g) I condemn quarantine - By no arrangements of this kind can the dissamination of contagion be curtailed. The evidence is all the other way. Real Security is afforded by arrangements which provide pure air, pure and wholesome water, good and efficient drainage, and healthy and commodious homes for the people.
— Surgeon General J Edwards

(h) No medical postulates of quarantine deserve to be considered in detail. Quarantine

purporting

purporting to be effectual, cannot rest satisfied with excluding from Entry Such persons as are obviously Sick but indispensably for the purpose, must take refuse to admit the healthy, till they shall have passed in perfectly non-infectious circumstances, at least as many days of probation as the disease can have days of incubation or Latency this condition often involving as its consequence, if one case of disease arise among a number of persons in quarantine the whole number of apparently healthy must recommence their period of probation, and this perhaps again and again. and for what length of time; no one can tell

Extract from Privy Council Report 1865

9- The above Extracts (paras 7 and 8) clearly point to the necessity for changing the System for fighting the Plague: and our own experience leads to the same Conclusion ~~The Hospitals have been the death~~

~~of~~

of many a parent and segregation by night of the whole population ~~while~~ the few who have been cured have returned to their insanitary houses only to contract the disease for the second time and to die.

10. The System proposed:— As opposed to Hospitals, house to house visitation and treatment suggests itself. This System has been tried successfully in European countries as will be seen from the extracts that follow:—

(a) House to House visitation and treatment was followed by a marked decrease in the death rate as shown by the daily returns to the Board of Health — Mr. Chadwick.

(b) This house to house System in St. Petersburg reduced the loss by the visitation of an epidemic from £25,000 to £3,000 — Medical Congress Brussels

(c) Not less than 60,000 lives, it was estimated, had been saved in Great Britain by acting on this principle

64 6

principle by the Board of Health.
Chadwick—

(d) The early house to house visitations enabled arrangements to be made for the separation of those who were well from those who were ill, and home treatment to be given more successfully, and the necessity for even small Hospitals to be diminished to a greater extent than was imagined.

(e) It is much better to treat patients at home, than to kill them by Act of Parliament— Transactions Sanitary Institute.

It appears, therefore, wise to attempt that which is practicable, rather than to strive for what has been found unattainable.

11. The rules and conditions for the isolation in their houses of the sick, and for the protection of the other inmates need not be alluded to here; but it may be mentioned that in cases where the house does not afford the floor space as under:—

For

For each male adult - 40 Sft:
ditto female ditto - 36 Sft
—"— for each child 16 Sft:

Either the patient or the other inmates should be removed to the nearest houses procurable, provided always that the diseased person and Suspects shall so conduct themselves as not unnecessarily to multiply the chances of extending infection to others

All animated creation is instinctively alive to the preservation of life and the human being more so than all the others - That being so, when the dangers from infection are sympathetically explained and the way to protect the healthy is shown, it is not in human nature to neglect such advice.

12. In the event of the change proposed meeting the approval of Government the removal of police will at once set in motion the tide of the returning inhabitants to the city. While members of the houses vacated on the outbreak of the

disease

diseases are now in an unhealthy condition owing to damage from the recent rains and the surface wash flowing into such houses as are lower than the streets no houses should be permitted to be re-occupied until disinfected and pronounced habitable by the Health Officer. The return of the people should, if possible, be limited to manageable numbers for each day — Suitable vacant houses should at once be engaged in each section to be used as Hospitals on occasion arising, while the present Hospitals will be available to the houseless poor and to Strangers.

13. Sanitary Improvements:—

The opinions of the eminent authorities quoted under para 9 clearly point to Sanitary Improvements as the best and only effective means on which any reliance can be placed for

Stamping

stamping out of epidemic diseases. They involve no interference with personal liberty, no restriction on trade or travel and none of the innumerable vexations annoyances the people have been subjected to since the outbreak of Plague.

14. The city was founded by Kempegowdah over three and half centuries ago, before the nature and causation of disease was understood, and was laid out without care or forethought. There was no attempt at wide streets and open spaces, nor regularity in the arrangement of the houses, every thing was left to chance and caprice. Hence the city became abundant in filthy conditions, and its soil, water, and air, both within and without the houses, utterly impure. The health of the inhabitants has deteriorated, infectious diseases became endemic, and upon them Plague of the most terrible type has now been engrafted

additions have been made from time to time as occasion & the exigencies of the moment

englefield. Experience has shown that it cannot be suppressed by seclusion or confinement to the locality in which it first appeared, because of the prevailing filth everywhere

15. The Government, fully alive to the evil conditions of the old city, so far back as 1892 ordered the northern and eastern Extensions with roads and Streets ranging from 40 to 100 ft: in width and open Spaces for recreation, and they have now the satisfaction of knowing that these are the only quarters of the city where the population have not deserted their houses though the Plague has raged in the old quarters for 16 weeks with fearful virulence. On the 14th March/98, which was Several months before the outbreak of the Plague the Government Sanctioned 50,000 Rs. for Sanitary improvements of the city

city involving the removal of 1600, houses, before the usual formalities of preparing Compensation Statements and Estimates and reports could be carried out, unfortunately Plague made its appearance and the work could not be started until the beginning of the current month.

16. Meanwhile, Extensive areas on well drained gravelly soil to the North and South, measuring 800 acres and 200 acres respectively have been acquired and are being laid out as rapidly as possible on the most approved lines. Since the founding of Bangalore city by Kempe Gowdah in 1537, the life habits and surroundings of the people have undergone great changes, while their habitations have been confined to the narrow limits considered sufficient for the requirements of a city three and half centuries ago, until the

enlightened Reliance has shown that it cannot be suppressed by reclusion or compunction to the locality in which it first appeared, because of the prevailing filth everywhere.

15. The Government fully alive to the evil conditions of the old city so far back as 1892 ordered the northern and western Extensions with roads and Streets ranging from 40 to 100 ft. in width and open Spaces for recreation, and they have now the satisfaction of knowing that these are the only quarters of the city where the population have not deserted their houses though the Plague has raged in the old quarters for 16 weeks with fearful virulence. On the 14th March/98, which was Several months before the outbreak of the Plague the Government Sanctioned 50000 Rs. for Sanitary improvements of the city

V/

the present administration undertook the expansion of the city in 1892.

14 When London was afflicted with the Plague it was only after the destruction of the city by fire that it disappeared, which is proof that epidemic diseases can be eradicated and prevented only by removing the conditions that invited its presence – The removal of 1600 houses in the city which is now in active progress, and the thinning of the population by the Extensions when completed may, therefore, be expected to annihilate as far as possible the circumstances which favor the continuance of the disease.

Sanitary Engineer
with the Govt. of Mysore

Bangalore
21st Nov.
1898

Memorandum

on

Plague Preventive measures,
present and proposed and permanent Sanitary Improvements
in the City of [redacted].